

ABSTRACT

A rotatable plug and socket for establishing electrical communication in a hazardous environment, each of said plug and socket having biased slidable protective members covering electrical contacts on each of said plug and socket, which are each slidably displaced during mating engagement of the plug with the socket. The slidable protective members ensure protection of the electrical contacts on each of the plug and socket members when such plug and socket connectors are not engaged, or not fully engaged. Such plug and socket connectors are particularly suited for location within respective sections of two drill pipe used in petroleum drilling operations, where such sections of drill pipe are desired to be rotatably secured together and it is desired to establish at the same time mating engagement of such plug and socket connector respectively in each of such two drill pipes so as to establish electrical communication between electronic circuitry and devices situate in one of the drill pipes with associated electronic circuitry and/or devices situate in the other of such two drill pipes.